PHILOSOPHICAL MAGAZINE LETTERS, 1995, VOL. 72, NO. 6, 435–437

SUBJECT INDEX

Vol. 72

	PAGE
Al, grain boundary motion in	361
$Al_{11}Co_4$, structure of	79
Al_2O_3, glass-coated, dewetting of	269
$Al_{70}Mn_9Pd_{21}$ quasicrystal, structure of	199
AlBe alloys, amorphous phases in	167
AlLiCu quasicrystal, defects in	1
AlMnSi, annealing twins in	193
AlPdMn quasicrystals, plastically deformed	375
AlPdRu, quasicrystals	239
Amorphous Si, Hall effect in	135
Amorphous SiN:H conductivity in	331
Amorphous SiO_2, growth of	385
Antiphase boundaries in FeAl	21
As_2Se_3, light-induced phenomena in	117
Bi embedded in Zn, nucleation of	411
BN on Si, thin films of	163
Bubbles, migration of to vacancy sources	41
C_{70} and C_{60}–C_{70} films, disorder in	185
Cellular precipitation in CuSb alloys	369
Closed surfaces, metallic, crumpling of	417
Columnar ice, cracking and sliding in	87
Crack tip in Si	251
Cu_3Au, vibrational entropy in	421
CuSb alloys, cellular precipitation in	369
Defect structure in irradiated Ge	99
Defects in Mn	337
Defects in quasicrystals	311
Diamond films, photoconductivity in	257
Dislocation arrays, disordered	49
Dislocations in 2D quasicrystals	87
Dislocations in quasicrystals	353
Dislocations, kinematic generation of	245
Disorder in C_{70} and C_{60}–C_{70} films	185
Disordered dislocation arrays	49
Elastic medium, anisotropic, Green's function for	405
Fatigue deformation in stainless steel	297
Faults, planar, in crystals	11
FeAl, antiphase boundaries in	21
FeTi, slip systems in	303
Film growth, heterogeneous, scaling in	55
Ge, irradiated, defect structure in	99
Glass-coated Al_2O_3, dewetting of	269
Grain boundaries, properties of	71
Grain boundary motion in Al	361
Grain growth, two-dimensional, model for	429
Green's function for anisotropic elastic medium	405

Haematite to maghemite transformation 105
Heavy fermion systems, Wilson ratio for 123
Heteroepitaxial crystal growth 231
Heterogeneous film growth, scaling in 55
Hopping in $Nd_{2-x}Ce_xCuO_4$ thin films 223

Ice, columnar, cracking and sliding in 87
Interphase boundary in TiCr 175

Kinematic generation of dislocations 245

Light-induced phenomena in As_2Se_3 117

Maghemite from haematite transformation 105
Magnesio–aluminate spinel, irradiated 155
Metallic closed surfaces, crumpling of 417
Mn, defects in 337
Modulated quasicrystal structures 345

$NbCr_2$ Laves phase, stacking faults in 147
$Nd_{2-x}Ce_xCuO_4$ thin films, hopping in 223

Oxides, strain transfer in 231

$PbSc_{0.5}Nb_{0.5}O_3$, microstructure of 215
Peierls–Nabarro model for screw dislocations 207
Perovskite $PbSc_{0.5}Nb_{0.5}O_3$, microstructure of 215
Phase transformation in TiAl 291
Phase transformation in quasicrystals 61
Photoconductivity in diamond films 257
Planar faults in crystals 11

Quasicrystal structures 345
Quasicrystal to crystal transformation 61
Quasicrystalline $Al_{11}Co_4$, structure of 79
Quasicrystalline AlLiCu, defects in 1
Quasicrystalline AlPdMn, plastically deformed 375
Quasicrystalline AlPdRu 239
Quasicrystalline structure of $Al_{70}Mn_9Pd_{21}$ 199
Quasicrystals, defects in 311
Quasicrystals, dislocations in 353

Screw dislocations, Peierls–Nabarro model for 207
Semicoherent precipitation in YBCO 33
Si, amorphous, Hall effect in 135
Si, BN on, thin films of 163
Si, crack tip in 251
SiN, vacancy clusters in 111
SiN:H, amorphous, conductivity in 331
SiO_2, amorphous, growth of 385
Slip systems in B2 FeTi 303
Spinel, magnesio–aluminate, irradiated 155
Stacking faults in $NbCr_2$ Laves phase 147
Stainless steel, ferritic, fatigue deformation in 297
Superconducting YBCO, microstrucure of 285
Superdislocations in Ti_3Al 393

Ti_3Al, superdislocations in 393
TiAl, phase transformation in 291
TiCr, interphase boundary in 175
Twinning in AlMnSi 193
Two-dimensional grain growth, model for 429
Two-dimensional quasicrystals, defects in 87

Vacancy clusters in SiN 111
Vacancy sources, migration of bubbles to 41
Vibrational entropy in Cu_3Au 421

Wilson ratio for heavy fermion systems 123

YBCO, microstructure of 285
YBCO, semicoherent precipitation in 33

Zn, Bi embedded in, nucleation of 411

PHILOSOPHICAL MAGAZINE LETTERS, 1995, VOL. 72, NO. 6, 439–443

INDEX OF AUTHORS (WITH TITLES)

Vol. 72

PAGE

Abe, E., Kumagai, T., and Nakamura, M.: Studies on the $\alpha \rightarrow \gamma$ phase transformation mechanism in Ti–48 at.% Al alloy by high-resolution electron microscopy. . 291
Aindow, M., *see* Higginson, R. L.
Aiyer, H. N., Govindaraj, A., and Rao, C. N. R.: Orientational disorder and other aspects of C_{70} and C_{60}–C_{70} films deposited on single-crystal substrates 185
Albers, R. C., *see* Chu, F.
Annis, A. D., *see* Shannon, J. M.
Anthony, L., *see* Nagel, L. J.

Baluc, N., Yu, D. P., and Kleman, M.: Transmission electron microscopy analysis of planar and line defects in an Al–Li–Cu icosahedral quasicrystal 1
Baluc, N., *see* Yu, D. P.
Bartsch M., *see* Rosenfeld, R.
Bate, P. S., *see* Higginson, R. L.
Baufeld, B., *see* Rosenfeld, R.
Beyss, M., *see* Rosenfeld, R.
Birringer, R., Krill, C. E., and Klingel, M.: Orientation-phase-space-averaged properties of grain boundaries 71
Biswas, S. K., *see* Selvan, K. A.
Blackman, J. A., *see* Mulheran, P. A.
Boudard, M., *see* Gastaldi, J.
Boumerzoug, Z., *see* Hamana, D.

Caranoni, C., *see* Menguy, N.
Carter, C. B., *see* Ramamurthy, S.
Carvalho, A. R., *see* Gomes, M. A. F.
Chattopadhyay, K., *see* Goswami, R.
Chen, C., and Tsong, T. T.: Atomic structure of a rhenium monolayer on the W(112) surface 285
Chen, C. L., *see* Zhou, D. S.
Chen, S. P., *see* Chu, F.
Chengzheng Hu, *see* Di-hua Ding
Chu, F., Ormeci, A. H., Mitchell, T. E., Wills, J. M., Thoma, D. J., Albers, R. C., and Chen, S. P.: Stacking fault energy of the $NbCr_2$ Laves phase 147
Chung, M. Y., and Ting, T. C. T.: The Green function for a piezoelectric piezomagnetic magnetoelectric anisotropic elastic medium with an elliptic hole or rigid inclusion 405
Cooper, B. R., *see* Sheng, Q. G.
Court, S. A., *see* Wiezorek, J. M. K.
Czubayko, U., *see* Molodov, D. A.

Dammak, H., *see* Meillon, S.
Deneuville, A., *see* Gonon, P.
Devanathan, R., Sickafus, K. E., Yu, N., and Nastasi, M.: Structure of the metastable state in ion-irradiated magnesio–aluminate spinel 155
Di-hua Ding, Renhui Wang, Wenge Yang, Chengzheng Hu and Yueling Qin: Elasticity theory of straight dislocations in quasicrystals. 353
Divinski, S. V., and Larikov, L. N.: Modulated quasicrystal structures 345
Donnadieu, P., *see* Proult, A.

Erbudak, M., *see* Zurkirch, M.

Feuerbacher, M., *see* Rosenfeld, R.
Flavin, E., *see* Meillon, S.
Foltyn, S. R., *see* Jia, Q. X.
Fontaine, F., *see* Gonon, P.
Frey, F., *see* Zhang, B.
Fultz, B., *see* Nagel, L. J.
Furuhara, T., Ogawa, T., and Maki, T.: Atomic structure of interphase boundary of an α precipitate plate in a β Ti–Cr alloy 175

Gastaldi, J., Reinier, E., Jourdan, C., Grange, G., Quivy, A., and Boudard, M.: Loop- and band-shaped defects observed in quasicrystals by X-ray topography . . 311
Gheeraert, E., *see* Gonon, P.
Gomes, M. A. F., Lima, E. A. O., and Carvalho, A. R.: Crumpling of metallic closed surfaces 417
Gonon, P., Deneuville, A., Gheeraert, E., and Fontaine, F.: Photoconductivity associated with deep levels in polycrystalline diamond films 257
Goswami, R., and Chattopadhyay, K.: Heterogeneous nucleation of nanometre-sized Bi particles embedded in a Zn matrix 411
Gottstein, G., *see* Molodov, D. A.
Govindaraj, A., *see* Aiyer, H. N.
Grange, G., *see* Gastaldi, J.
Gust, W., *see* Molodov, D. A.

Hackenberger, L. B., *see* Zhou, D. S.
Hamana, D., Boumerzoug, Z., and Saheb, N.: Cellular precipitation from phase boundaries in Cu–9 wt% Sb alloy 369
Hanke, G., *see* Rosenfeld, R.
Hashimoto, Y., *see* Kaneko, Y.
Hebert, B. C., *see* Ramamurthy, S.
Higginson, R. L., Aindow, M., and Bate, P. S.: Annealing twins in dilute Al–Mn–Si alloys 193
Hochstrasser, M., *see* Zurkirch, M.
Holender, J. M., *see* Okumu, J.
Huang, F. Y., and Wang, K. L.: Strain transfer between thin films on buried oxide and its application in heteroepitaxial crystal growth 231
Humphreys, C. J., *see* Wiezorek, J. M. K.

Jacobsen, K. W., *see* Schiøtz, J.
Jia, Q. X., Wu, X. D., Zhou, D. S., Foltyn, S. R., Tiwari, P., Peterson, D. E., and Mitchell, T. E.: Deposition of epitaxial yttria-stabilized zirconia on single-crystal Si and subsequent growth of an amorphous SiO_2 interlayer 385
Johnson, W. L., *see* Yvon, P. J.
Jourdan, C., *see* Gastaldi, J.

Kaneko, Y., Hashimoto, S., and Miura, S.: Cracking along mechanical twin boundaries during fatigue deformation in a ferritic stainless steel crystal 297
Kleman, M., *see* Baluc, N.
Kleman, M., *see* Yu, D. P.
Klingel, M., *see* Birringer, R.
Korner, A.: Analysis of the evolution of antiphase boundaries in a Fe–Al alloy during *in-situ* transmission electron microscopy heating 21
Kounavis, P., and Mytilineou, E.: The kinetics of the reversible light-induced phenomena of sputtered amorphous As_2Se_3 117
Krill, C. E., *see* Birringer, R.
Kumagai, T., *see* Abe, E.
Kuo, K. H., *see* Li, X. Z.

Lampin, P., Menguy, N., and Caranoni, C.: Microstructure of $PbSc_{0.5}(Nb, Ta)_{0.5}O_3$: a highly ordered solid solution of complex perovskite compounds 215
Larikov, L. N., *see* Divinski, S. V.
Li, X. Z., *see* Zhang, B.
Li, X. Z., Shi, N. C., Ma, Z. S., Ma, X. L., and Kuo, K. H.: Structure of $Al_{11}Co_4$, a new monoclinic approximant of the Al–Co decagonal quasicrystal 79
Lima, E. A. O., *see* Gomes, M. A. F.

Ma, X. L., *see* Li, X. Z.
Ma, Z. S., *see* Li, X. Z.
Maki, T., *see* Furuhara, T.
Marsh, S. P., Masumura, R. A., and Pande, C. S.: A curvature-driven vertex model for two-dimensional grain growth 429
Masumura, R. A., *see* Marsh, S. P.
Meillon, S., Dammak, H., Flavin, E., and Pascard, H.: Existence of a direct phase transformation from haematite to maghemite 105
Menguy, N., *see* Lampin, P.
Messerschmidt, U., *see* Rosenfeld, R.
Messier, R., *see* Zhou, D. S.
Mitchell, T. E., *see* Chu, F.
Mitchell, T. E., *see* Jia, Q. X.
Mitchell, T. E., *see* Zhou, D. S.
Miura, S., *see* Kaneko, Y.
Molodov, D. A., Czubayko, U., Gottstein, G., Shvindlerman, L. S., Straumal, B., and Gust, W.: Acceleration of grain boundary motion in Al by small additions of Ga 361
Morgan, G. J., *see* Okumu, J.
Mulheran, P. A., and Blackman, J. A.: The origins of island size scaling in heterogeneous film growth 55
Muto, S., and Takeda, S.: New stable defect structure on the {001} plane in germanium formed by deuteron irradiation 99
Mytilineou, E., *see* Kounavis, P.

Nagaya, G., *see* Saka, H.
Nagel, L. J., Anthony, L., and Fultz, B.: Differences in vibrational entropy of disordered and ordered Cu_3Au 421
Nakamura, M., *see* Abe, E.
Nakayama, T., *see* Tanda, S.
Nastasi, M., *see* Devanathan, R.
Nazarov, A. A.: Stress fields of disordered dislocation arrays: a double wall consisting of dislocation dipoles 49
Ngan, A. H. W.: A critique on some of the concepts regarding planar faults in crystals 11
Ngan, A. H. W.: On generalizing the Peierls–Nabarro model for screw dislocations with non-planar cores 207
Nickolayev, O. Y., and Schulson, E. M.: Grain-boundary sliding and across-column cracking in columnar ice 93
Nielsen, O. H., *see* Schiøtz, J.
Nissen, H.-U., *see* Zurkirch, M.

Ogawa, T., *see* Furuhara, T.
Okumu, J., Holender, J. M., and Morgan, G. J.: The Hall effect and electronic conduction in amorphous Si 135
Ormeci, A. H., *see* Chu, F.

Pande, C. S., *see* Marsh, S. P.
Pascard, H., *see* Meillon, S.
Peterson, D. E., *see* Jia, Q. X.

Proult, A., and Donnadieu, P.: A simple description of the α-manganese (A12) structure derived from defect studies 337

Quivy, A., *see* Gastaldi, J.

Ramamurthy, S., Hebert, B. C., and Carter, C. B.: Dewetting of glass-coated α-Al_2O_3 $\{10\bar{1}0\}$ surface 269
Rao, C. N. R., *see* Aiyer, H. N.
Reinier, E., *see* Gastaldi, J.
Renhui Wang, *see* Di-hua Ding
Ritsch, S., *see* Zurkirch, M.
Rosenfeld, R., Feuerbacher, M., Baufeld, B., Bartsch, M., Wollgarten, M., Hanke, G., Beyss, M., Messerschmidt, U., and Urban, K.: Study of plastically deformed icosahedral Al–Pd–Mn single quasicrystals by transmission electron microscopy 375

Saheb, N., *see* Hamana, D.
Saka, H., and Nagaya, G.: Plan-view transmission electron microscopy observation of a crack tip in silicon 251
Salje, E. K. H., *see* Vul, D. A.
Schiferl, D., *see* Yvon, P. J.
Schiøtz, J., Jacobsen, K. W., and Nielsen, O. H.: Kinematic generation of dislocations 245
Schneider, J., *see* Zhang, B.
Schulson, E. M., *see* Nickolayev, O. Y.
Schwarz, R. B., *see* Yvon, P. J.
Selvan, K. A., and Biswas, S. K.: Calculation of elastic pinning strength of semicoherent Y_2BaCuO_5 precipitates in $YBa_2Cu_3O_7$ 33
Shannon, J. M., and Annis, A. D.: Current-induced defect conductivity in hydrogenated silicon-rich amorphous silicon nitride 323
Sheng, Q. G., and Cooper, B. R.: Non-Kondo prediction of Wilson ratio for heavy fermion systems 123
Shi, N. C., *see* Li, X. Z.
Shvindlerman, L. S., *see* Molodov, D. A.
Sickafus, K. E., *see* Devanathan, R.
Staiger, W., *see* Yu, D. P.
Steurer, W., *see* Zhang, B.
Straumal, B., *see* Molodov, D. A.

Takasugi, T., and Yoshida, M.: Transmission electron microscopy observation for activated slip systems of B2 FeTi 303
Takeda, S., *see* Muto, S.
Tanda, S., and Nakayama, T.: Variable-range-hopping-type transport near the superconductor–insulator transition observed in $Nd_{2-x}Ce_xCuO_4$ thin films . 223
Thoma, D. J., *see* Chu, F.
Ting, T. C. T., *see* Chung, M. Y.
Tiwari, P., *see* Jia, Q. X.
Tsatskis, I., *see* Vul, D. A.
Tsong, T. T., *see* Chen, C.

Urban, K., *see* Rosenfeld, R.

Van Siclen, C. DeW.: Migration of gas bubbles in solids towards vacancy sources 41
Vul, D. A., Tsatskis, I., and Salje, E. K. H.: On the possibility of equilibrium tweed microstructure in tetragonal $YBa_2Cu_3O_7$ superconductors 277

Wang, C.-M.: Vacancy clusters in α-silicon nitride 111
Wang, K. L., *see* Huang, F. Y.
Wenge Yang, *see* Di-hua Ding
Wetli, E., *see* Zurkirch, M.
Wiezorek, J. M. K., Court, S. A., and Humphreys, C. J.: On the dissociation of prism plane superdislocations in Ti_3Al 393
Wills, J. M., *see* Chu, F.
Wittmann, R.: Note on the Burgers vector determination of dislocations in two-dimensional quasicrystals 87
Wollgarten, M., *see* Rosenfeld, R.
Wu, X. D., *see* Jia, Q. X.

Yan, Y.: High-resolution electron microscopy of pressurized $Al_{68}Pd_{23}Mn_9$ icosahedral phase 331
Yoshida, M., *see* Takasugi, T.
Yu, D. P., Baluc, N., Staiger, W., and Kleman, M.: Phase transformation from quasicrystal to crystal 61
Yu, D. P., *see* Baluc, N.
Yu, N., *see* Devanathan, R.
Yueling Qin, *see* Di-hua Ding
Yvon, P. J., Schwarz, R. B., Schiferl, D., and Johnson, W. L.: Covalent and liquid-like amorphous phases in Al–Ge alloys 167

Zhang, B., Li, X. Z., Steurer, W., Schneider, J., and Frey, F.: New crystalline approximant of the decagonal quasicrystal in Al–Pd–Ru alloy 239
Zhou, D. S., Chen, C. L., Mitchell, T. E., Hackenberger, L. B., and Messier, R.: Thin films of cubic boron nitride on silicon 163
Zhou, D. S., *see* Jia, Q. X.
Zurkirch, M., Erbudak, M., Nissen, H.-U., Hochstrasser, M., Wetli, E., and Ritsch, S.: Near-order structure and symmetry elements of an icosahedral quasicrystal alloy: $Al_{70}Mn_9Pd_{21}$ 199